

AMENDMENTS TO THE CLAIMS

A complete listing of all claims in the application is provided below with the requested amendments marked.

1. (Currently amended) A heat exchange element comprising a formable laminate of a metal layer and an adhesive heat-seal layer, the laminate being provided on first and second surfaces with a plurality of generally corrugated fins, the fins being connected under heat and pressure in heat conducting relationship with the laminate by said adhesive heat-seal layer to increase an effective surface area thereof, the laminate being sealed under heat and pressure by said adhesive heat-seal layer to itself or to another similar laminate to form a flow channel for a heat exchange medium, the fins being provided on both an internal surface and an external surface of the flow channel, the heat exchange element further comprising a water-retaining layer provided on the fins on at least one of the surfaces .
2. (previously presented) The heat exchange element according to claim 1, wherein the metal layer comprises soft annealed aluminum.
3. (previously presented) The heat exchange element according to claim 1, wherein the metal layer has a thickness of between 25 microns and 120 microns.
4. (previously presented) The heat exchange element according to claim 1, wherein the heat-seal layer is substantially coextensive with the metal layer.
5. (previously presented) The heat exchange element according to claim 1, wherein the heat-seal layer is provided on both surfaces of the metal layer.
6. (previously presented) The heat exchange element according to claim 1, wherein the water-retaining layer is provided on only one surface of each of the fins.
7. (Canceled)
8. (Canceled)

9. (Canceled)

10. (Currently amended) The heat exchange element according to claim 1, wherein the fins comprise a formable laminate of a metal layer and an adhesive heat-seal layer.

11. (previously presented) The heat exchange element according to claim 1, wherein the flow channel comprises an elongate flat tube of generally rectangular cross-section.

12. (Original) The heat exchange element according to claim 11, wherein the tube comprises a first laminate portion having lateral edges, the edges being folded together and sealed to form an elongate seam.

13. (withdrawn) The heat exchange element according to claim 11, wherein the tube comprises first and second laminate portions each having lateral edges, the first and second laminate portions being sealed to one another along their respective edges.

14. (withdrawn, currently amended) A method of manufacturing a heat exchanger, comprising:

providing a plastically deformable first metal laminate;

providing a plastically deformable second laminate having first and second surfaces;

providing a plastically deformable third metal laminate;

plastically forming the first and third laminates into generally corrugated shapes having a series of troughs;

connecting the first and third laminates to the respective first and second surfaces of the second laminate at the series of troughs to form a heat-transmitting wall with heat-conducting fins on both sides; and

sealing the second laminate to itself or to another similar laminate to form a flow channel wherein the first and third laminates or the second laminate comprise a heat-sealable adhesive layer and the laminates are connected together by heat sealing said heat-sealable adhesive layer at a first temperature.

15. (Canceled).

16. (withdrawn, currently amended) The method according to claim 14, wherein the second laminate comprises a heat-sealable adhesive layer and the second laminate is sealed to itself or to another similar laminate by heat sealing at a second temperature lower than the first temperature.

17. (withdrawn) The method according to claim 14, wherein the first laminate comprises first and second surfaces, the first surface being provided with a water retaining layer and the second surface being connected to the second laminate.

18. (withdrawn) The method according to claim 14, further comprising dividing the first and third laminates into sections prior to connecting them to the second laminate.

19. (Canceled)

20. (withdrawn) The method according to claim 14, further comprising forming louvers in the first laminate prior to connecting it to the second laminate.

21. (Currently amended) A heat exchange element comprising a membrane comprising a formable laminate of a metal layer and an adhesive heat-seal layer, the membrane being provided on first and second surfaces with a plurality of generally corrugated fins, the fins comprising a formable laminate of a metal layer and an adhesive heat-seal layer and being connected under heat and pressure in heat conducting relationship with the membrane by said adhesive heat-seal layer to increase an effective surface area thereof, the membrane being folded to form flow channels for first and second heat exchange media to flow over its respective first and second surfaces, the heat exchange element further comprising a water-retaining layer provided on the fins on at least the second surface.

22. (previously presented) The heat exchange element according to claim 21, wherein the water retaining layer is a fibrous non-woven material adhesively laminated to the fins.

23. (previously presented) The heat exchange element according to claim 21, further comprising louvers formed through the fins.

24. (previously presented) The heat exchange element according to claim 1, further comprising louvers formed through the fins.